

HOMEOWNERS TRAINING COURSE

AT

NEWARK REDEVELOPMENT AND HOUSING AUTHORITY

MAINTENANCE TRAINING CENTER

4 Sheffield Drive

Newark, N.J. 07104

Saturday, October 22, 1977

9:00 a.m. - 1:00 p.m.

Instructor: Ralph Zanga

M A S O N R Y

Session #1 Tile and Tile Flooring

- a) Preparing wall
- b) Cutting tile and replacing
- c) Grouting
- d) Pointing and cleaning

## FILL THE CRACK AROUND BATHTUB OR SHOWER

### YOUR PROBLEM

There's a crack between the bathtub and wall. It should be filled to keep water out. Water can damage the walls and house frame. The crack catches dirt and looks bad.

### WHAT YOU NEED

There are two types of waterproof crack filler. Choose one:

1. Waterproof grout
2. Plastic sealer

Grout comes in powder form. It must be mixed with water. You can mix it in small amounts at a time. Grout costs less than plastic sealers.

Plastic sealer comes in a tube. It looks like toothpaste. It is easier to use than grout, but costs more. Read directions on the package before you begin your project.

### HOW-TO

#### Prepare the surface

1. Remove the old crack filler from the crack. (Fig 1.)
2. Wash the surface to remove soap, grease, and dirt. (Fig 2.)
3. Dry the surface well before you make repairs. (Fig 3.)

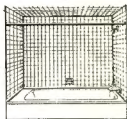


Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8

### Using grout

Put a small amount of grout in a bowl. (Fig. 4) Slowly add water and mix until you have a thick paste. Put this mixture in the crack with a putty knife. (Fig. 5) Press in to fill the crack. (Fig. 6) Smooth the surface. (Fig. 7)

Wipe excess grout from the wall and tub before it gets dry and hard. Let the grout dry well before anyone uses the tub.

Empty any left-over grout mixture. (Not down the drain!) Wash your bowl and knife before grout dries on them.

### Using plastic sealer

You can squeeze plastic sealer from the tube in a ribbon along the crack. Use a putty knife or spatula to press it down and fill the crack. Smooth the surface. Work fast! Plastic sealer dries in a very few minutes. Keep the cap on the tube when you're not using it. (Fig. 8)

### YOUR REWARD

- A better looking bathroom.
- Prevent water damage to the house.
- You save money by doing the job yourself.

## MASONRY

### REPLACING CERAMIC TILE

#### Session No. 1

Of all the wall covering materials commonly used in the home, ceramic tile is the most durable. Equally important is its impervious to water. That's why it's used so extensively in the bath, where watervapor volume is tremendous. However, ceramic tile can break, crack or just plain fall out (usually because it was installed improperly) and this makes replacement essential. Otherwise, all that water vapor (and possible water from showers or baths) can sneak through the damaged or missing tile and wreak havoc in walls. Tiles may also need replacement for purely cosmetic reasons: they've chipped or cracked (the surface develops small cracks). Whatever, the information that follows will be handy to have.

Replacing the tile, from a mechanical point of view, is not difficult. But getting replacements to match the old tile may be. The best bet is to take the damaged tile to your tile store so you can get as close a color match as possible. If he doesn't come close, try a few other stores.

Basic tools for taking out bad tiles are hammer and a cold chisel. The latter is made of extremely tough steel and is specifically designed for cutting hard materials such as tile and stone. A 3/4 inch one is good. It's available for about \$1.00 at hardware stores.

First, use the edge of the chisel or a putty knife to dig out as much grout (the stuff between tiles) as you can from all four sides of the tile. then, using your cold chisel and hammer, carefully chip away, one by one, all corners of all tile down to the backing material.

Following this use the chisel to pry the tile up, working towards the center and lightly tapping as needed with the hammer. It may crack and come off in pieces. If you have adjacent tiles to remove, you can get them out easily by prying and tapping from the exposed sides.

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When you've got the tile out, use chisel and hammer and putty knife to chip and scrape the backing clean. The idea is to make a perfectly flat and smooth surface for the new tile.

Next, install the replacement tile. One way to do this is with epoxy adhesive; a two-ounce kit (it costs about \$1.00) handles the job easily. Mix the epoxy, then apply a bead of it around the back edges of the tile and in the middle. Carefully set it in place, pushing it in flat and moving it so there is an equal amount of space around it and adjacent tiles. Let dry.

Another way - cheaper - is with ordinary plaster. Just work up a thick mix, butter the wall, then set the tile in. If some plaster squeezes out the sides, wipe it away with a finger.

When adhesive or plaster is set, apply grout. Best bet here is one of the waterproof ready-mixed grouts. These are available in tube form at around .50¢. White grout is commonly available. If a color is needed you can also get grout that can be tinted with universal colors to any shade needed.

To apply the grout, just squeeze it out like toothpaste, then push it solidly with your finger and smooth it off with your finger to match the rest of grout. When done, use a wet sponge or cloth to wipe off excess and clean the tile face. Let dry. If you see a haze form on the tile, wipe it away.

Sometimes you'll be required to replace only part of a tile, such as a corner piece. You can follow the directions for replacing a full one. To cut the piece needed, first score the face of the tile with a sharp glass cutter. Then place the tile on the floor with a large nail or metal rod centered under the score line. Step on the tile so you are applying pressure on both sides of the score line. The tile should break cleanly. Smooth off rough edges with a file or carborundum stone.

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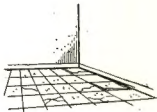
If you have to cut an indentation in tile to make it fit around an obstruction, such as a pipe, you can cut it to fit by first scoring it with a glass cutter then cut out the waste with small nippers. Don't try and take out the waste piece with one bite. Rather, nibble away at it with the nippers until it's all gone. To make the nibbling easier, make small criss-cross score lines on the waste part with the glass cutter. You can also use a Grit-Edge rod saw which is coated with tungsten-carbide particles and will cut the ceramic tile very easily and in any desired shape. This type of rod saw can be inserted in any hack-saw frame and is available in many hardware stores and home centers.

If a tile has merely fallen - not chipped or broken in any way - you can simply reset it with fresh adhesive. First, though, use your chisel and carefully remove old cement or adhesive from the back of the tile. Then follow with the grouting as described above.

## SETTING TILE

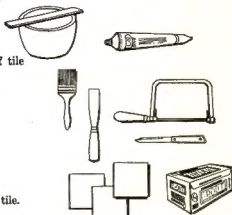
### YOUR PROBLEM

- Tile have come loose from walls or floor.
- Tiles are damaged, need replacing.
- It's hard to get help to do small repairs.



### WHAT YOU NEED

- Something to mix in.
- Tile adhesive for the kind of tile you have.
- Paint brush or putty knife.
- Knife or saw.
- New tile (if needed.)
- Grout—for ceramic or plastic tile.



### HOW-TO—FLEXIBLE TILE

1. Remove loose or damaged tile. A warm iron will help soften the adhesive. (Fig. 1.)
2. Scrape off the old adhesive from the floor or wall. Also from the tile if you're to use it again. (Fig. 2)
3. Fit tiles carefully. Some tile can be cut with a knife or shears, others with a saw. Tile is less apt to break if it is warm. (Fig. 3)



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11

4. Spread adhesive on the floor or wall with a paint brush or putty knife. (Fig. 4)
5. Wait until adhesive begins to set before placing the tile. Press tile on firmly. (A rolling pin works well.) (Fig. 5)

#### FOR CERAMIC OR PLASTIC TILE

1. Scrape off the old adhesive from the floor or wall. Also from old tile if you use it again. (Fig. 6)
2. If you are using new tile and need to fit it, mark it carefully to size. Cut it with a saw. You can make straight cuts on tile by scoring it first. Then it will snap off if you press it on the edge of a hard surface. (Fig. 7)
3. Spread adhesive on the wall or floor and on the back of the tile. Press tile firmly into place. (Fig. 8)
4. Joints on ceramic tile should be filled with grout after the tile has firmly set. Mix grout (powder) with water to form a stiff paste. Press the mixture into the joints with your fingers. Smooth the surface. (Fig. 9)
5. Carefully remove excess grout from the tile surface before it dries. (Fig. 10)
6. Empty excess grout mixture. (Not down the drain!) Clean up surfaces and tools. (Fig. 11)
7. Let grout dry overnight before it gets wet again.

#### YOUR REWARD

- A better looking place to live.
- Larger and more costly repairs prevented later.
- You save money by doing the job yourself.



## MASONRY

### RESILIENT TILE FLOORS

#### Session No. 1

A new floor covering of resilient tiles works miracles for the appearance of a room and the job can be easily done by any homeowner who can spare a day during a weekend to do the work. Basically the job involves a few very simple calculations, the spreading of an easily applied latex type adhesive, and the positioning of the tiles. You work on one quarter of the floor at a time, so even if you should have to postpone your work suddenly, you can complete the remaining quarters at a convenient time.

Provided that the existing flooring is in good condition, the preparation work is minor. If you're laying tile concrete, wood floors or badly worn or uneven tile flooring, you'll have to do a bit of preparatory work to make a firm, level surface. Full directions will come with the tile.

The first thing you do when installing new tile is to remove the quarter round shoe moldings at the base of the walls. If you do find that any of the floor boards or old tiles are loose, nail them down. Also wash the floor thoroughly with strong detergent to remove the wax so that the new adhesive will hold. Any stubborn spots can be scrubbed with benzene and steel wool.

The second major operation involves a bit of simple measuring. Because the corners of most rooms are seldom at exact right angles to each other, it is best to start the installation of tile from the center of the room rather than from one wall. To do this properly, you must find the exact center of the room. Carefully measure the length of each side of the room, divide each distance in half, and drive a small nail into the floor (if wood), or mark (if concrete), at the center point of each wall. Then stretch a chalkline from the center points on two opposite walls. Where the strings cross is the

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center of your floor. As a double check against your accuracy, use a carpenter's square to make certain that the strings cross at right angles. If they don't, recheck your measurements, reposition your nails and strings, and check again until you get a true right angle.

Now make a dry run with the tiles to test what size the last tile next to the wall will be. This is important if the job is to look good as too narrow a tile along the wall edge gives a poor appearance. All tiles around the edge of the room should be the same width. Also remember that this last tile adjacent to the wall should not be less than 6 inches wide. Lay your first test row of tiles by starting at the center point and working towards the wall. If you find that the last tile will be less than 6 inches wide, shift the center line a few inches so that this last tile will be wider, then readjust the second chalkline so that the last tile in the other direction will be the same as the one you just measured.

If you discover that the joints between the new tiles fall exactly where the joints of the old tiles are, shift the chalklines slightly to avoid this. Always shift both lines the same distance - never just one. This preliminary measuring is the most important part of the job and will make the difference between a professional looking finish and an amateur one.

After completing all your measuring, you are ready to apply the white latex type adhesive to the floor with a nubby roller or a brush. Only one quarter of the room should be covered at one time. Let the adhesive dry 20 to 30 minutes, depending on the instructions on the can. Press your finger on the adhesive and if it comes away dry, it's ready to receive the tiles. You don't have to work at a feverish pace, because the adhesive keeps in a good receptive condition for 24 hours. If you should accidentally cover the chalklines with the adhesive, lift them up before starting to lay tiles.

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### RESILIENT TILE FLOORS

Place your first tile at the exact intersection of the two chalklines and press firmly in place. Be sure to butt each tile firmly against the adjacent tile so that the corners are aligned. Never slide the tiles into place. Install the first row of tiles against the chalkline, always working towards the wall. When you have laid the next-to-the-last tile in this row, you must stop to measure and cut the last tile that will be next to the wall. (In rare cases the tiles will fit perfectly without any cutting needed).

To measure for the cutting first lay a full tile over the last one just laid. Then place another full tile against the wall and overlapping the double tile. Draw a pencil line on the double tile where the other tile overlaps it. This shows you where to cut the last tile which will form the edge by the wall. If you prefer to measure the existing space with your ruler and then transfer it to the tile, this method will work out well, but it is more time consuming than the other method and there's a greater chance for error. Always place the cut edge against the wall and not against the other tile this assures an almost invisible joint.

Tiles cut easier if they are warmed first, especially if the shapes are intricate as around pipes. Hold the tile between pliers over a stove burner (either gas or electric), and pass it back and forth several times until it softens slightly. A warm oven will also do the softening if you prefer, but don't forget the tiles and leave them in too long. If you need to cut the tile to fit around pipes, make a paper pattern first and then transfer it to a tile. You need a sharp knife held against a straight edge to do the cutting.

After you have finished laying the first row of tile from the center of the room to the wall, start the second row at right angles, also beginning at the center and doing a test row first. Continue this row as previously until you reach the wall. From this point on you work gradually to fill in the empty

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spaces - always proceeding from the center towards the walls in a step fashion.

When the first quarter is completely filled in, start on the second quarter and continue until the entire floor is covered.

The last step is to restore the moldings around the room's perimeter. Then all you need is to stand back and admire your handiwork. You'll have the satisfaction of a face-lifted room in which you saved considerable money by doing the work yourself.